

CENTRAL INTELLIGENCE AGENCY  
INFORMATION REPORT

COUNTRY Poland  
SUBJECT Polish "Kania" Type Trainer Aircraft  
PLACE ACQUIRED  
DATE ACQUIRED BY  
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SECURITY INFORMATION

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(LISTED BELOW) (A), (B) & (C)  
SUPPLEMENT TO REPORT NO.

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THIS IS UNEVALUATED INFORMATION

1. Only one type of the "Kania" trainer aircraft was constructed at the Bielsko/Aleksandrowice Airfield. This was a prototype of the plane and was designed by a Major (fnu) Stankiewicz and an aircraft engineer named Hustin Sandauer. Several Soviet commissions had visited the Glider Research Plant in Bielsko in 1951 and showed considerable interest in the aircraft. I believe that the Soviets were considering replacing their antiquated PO-2 type aircraft with this new trainer. The prototype of the plane was tested at the Bielsko/Aleksandrowice Airfield (4948N-1900E) from April 1951 until June 1951. Serial production of the plane was scheduled to begin at the Panstwowe Zaklady Lotnicze (PZL) (State Aircraft Plant) in Mielec, Poland (5017N-2125E) sometime in 1951.
2. Characteristics of the "Kania" type trainer aircraft are as follows:
- (a) Performance
- (1) Maximum speed: 220 kilometers per hour at sea level and up, to 3,000 meters.
  - (2) Cruising speed: Normal power: 180 kilometers per hour at 3,000 meters.
  - (3) Economical speed: 165 kilometers per hour at 3,000 meters.
  - (4) Average rate of climb: 1.8 meters per second up to 3,000 meters.
  - (5) Maximum service ceiling: 6,200 meters with normal weight.
  - (6) Take-off distance: Over an 18 meter obstacle - at zero wind and at sea level: 200 meters.
  - (7) Fuel: Internal - normal 160 liters. External - none.
  - (8) Combat range: 960 kilometers at 180 kilometers per hour at sea level and up to 3,000 meters altitude, with a normal fuel load of 160 liters.

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(9) Combat radius: 480 kilometers.

(b) Power Plant

- (1) Number and type of engines: one Soviet M-11 FR type engine, tractor mounted in the nose of the aircraft.
- (2) Description: five-cylinder, air-cooled, radial-engine.
- (3) Take-off power: 165 horsepower at sea level, 1,750 rpm.
- (4) Normal power: 135 horsepower at sea level, 1,600 rpm.
- (5) Propeller: two-bladed, wooden.
- (6) Pitch control: fixed.
- (7) Armament: none.
- (8) Maximum freight load: 350 kilograms (including aircrew).
- (9) Combat protection: none.
- (10) Type of fuels: B-72 octane.
- (11) Fuel tanks: not protected.

(c) Air Specifications

- (1) Construction: constructed completely of wood; rudders, ailerons and elevators are covered with fabric.
- (2) Wing span: 12 meters.
- (3) Length: 13.5 meters.
- (4) Overall height: 2.35 meters.
- (5) Additional information: designed as a primary and advance trainer; it may also be used as a liaison plane. Constructed to replace the PO-2 and CSS-13 type trainers.

(d) Physical Characteristics

- (1) Wings: the wings were mounted high on four column struts above the cockpit and were supported by two angular struts which ran from the wing chord root to the junction with the landing gear. The wings were joined over the cockpit. A sketch is attached as Enclosure (C).<sup>7</sup>
- (2) Span: approximately 12 meters.
- (3) Dihedral: very slight upward dihedral.
- (4) Shape: surfaces tapering outwardly from the wing root to approximately one-fifth of wing length and then tapering inwardly to wing tip. Surfaces swept back approximately 15 degrees. Wing tips square. Aspect ratio very low.
- (5) Wing area: approximately 15.6 square meters.
- (6) Chord length: approximately 1.30 meters.
- (7) Wing thickness: approximately 25 centimeters.
- (8) Flaps: none.
- (9) Slots: fixed slots located approximately one-third of wing length at the wing tip.
- (10) Ailerons: length: 2.5 meters. Width: 45 centimeters. Fabric covered.

(e) Unusual features: built-up portion to the rear of rear cockpit to provide steady airflow.

(f) Construction: wooden frame and plywood covered. Plywood skin approximately four millimeters thick. Constructed in one piece.

(g) Empenage

- (1) Vertical surfaces: single fin and rudder. Fin constructed of wood frame, plywood-covered. Frame of rudder is of wood and fabric covered. Fixed aluminum tabs located on rudder.
- (2) Horizontal surfaces: stabilizer normal, square shaped, and have no dihedral frame constructed of wood. Plywood covered, with tapering leading edges. Elevators: wooden frame, fabric covered. No trim tabs.

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- (h) Unusual features: the aircraft was equipped for glider towing. The glider-tow attachment was located directly beneath the vertical stabilizer at the rear end of the fuselage. To strengthen the fuselage for glider towing, two steel cables, approximately five millimeters thick were installed in the craft, running from the tail of the plane along the floor of the fuselage to a point located approximately under the front cockpit.
  - (i) Landing gear: normal fixed-type landing gear similar to that in the American Piper Cub. The main wheels used were old Piper Cub wheels taken from war-surplus Cubs. The plane used an uncontrollable tail wheel. The approximate diameter of wheel was 25 centimeters. Main wheel strut was approximately 1.6 meters high, constructed of steel tubing and fabric-covered, and utilized rubber shock absorbers located within the fuselage.
  - (j) Fuel tanks: one aluminum tank located just forward of the front cockpit. The capacity of the tank is 160 liters and is filled from the top.
  - (k) Oil tanks: one aluminum tank located just forward of the gas tank. The capacity of the oil tank is 16 kilograms. Pitot tube located on the left wing strut.
3. Points listed hereunder refer to source's memory sketch of the "Kania" trainer cockpit (rear pilot's cockpit). [Attached as Enclosure (B).]
- (a) Plastic cockpit windshield
  - (b) Magnetic compass
  - (c) Altimeter
  - (d) Tachometer indicator
  - (e) Position and panel light switches
  - (f) Ignition switch
  - (g) Pitot head heater switch
  - (h) Primer fuel pump
  - (i) Throttle
  - (j) Carburetor heater
  - (k) Carburetor height correction mixture control
  - (l) Gasoline fuel valve (downward motion - off)
  - (m) Control stick
  - (n) Control stick neutralizing lock
  - (o) Flight indicator
  - (p) Airspeed indicator
  - (q) Fuel tank indicator (gasoline)
  - (r) Oil temperature indicator
  - (s) Oil pressure indicator
  - (t) Brake locks
  - (u) Rudder controls
  - (v) Starter-boosters electro-magnetic. (In order to start, turn the manually operated handle to provide extra strong ignition sparks.)
4. The front cockpit had a control stick, rudder controls, throttle, carburetor heating indicator, carburetor height correction, compass, altimeter, air speed indicator, and tachometer.

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Enclosures: (A) Memory Sketch of Polish "KANIA" Type Trainer Aircraft  
 (B) Memory Sketch of "KANIA" trainer cockpit layout  
 (C) Memory sketch of "KANIA" trainer aircraft wing joints

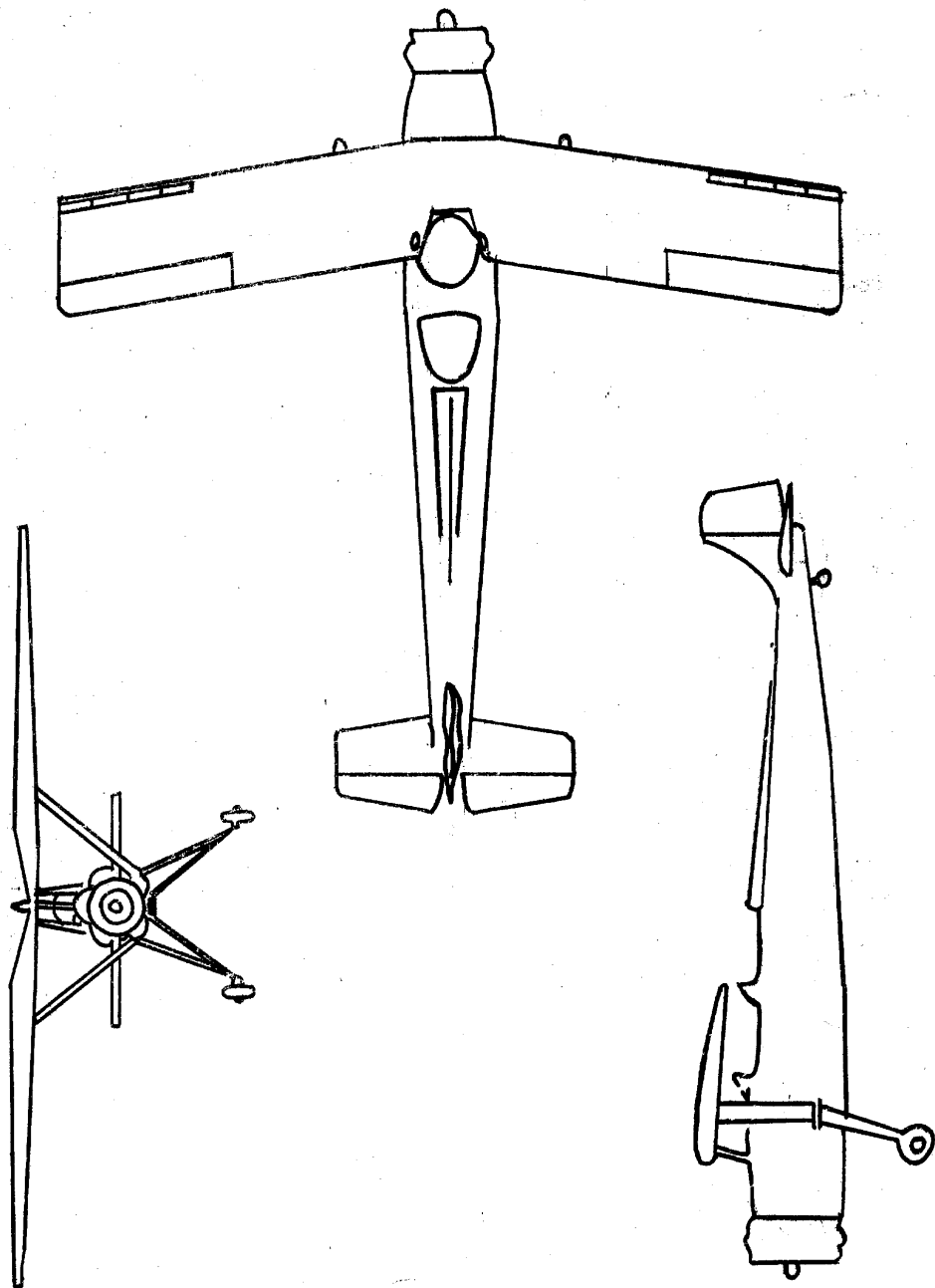
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ENCLOSURE (A)

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Memory Sketch of Polish  
"KANIA" Type Trainer Aircraft

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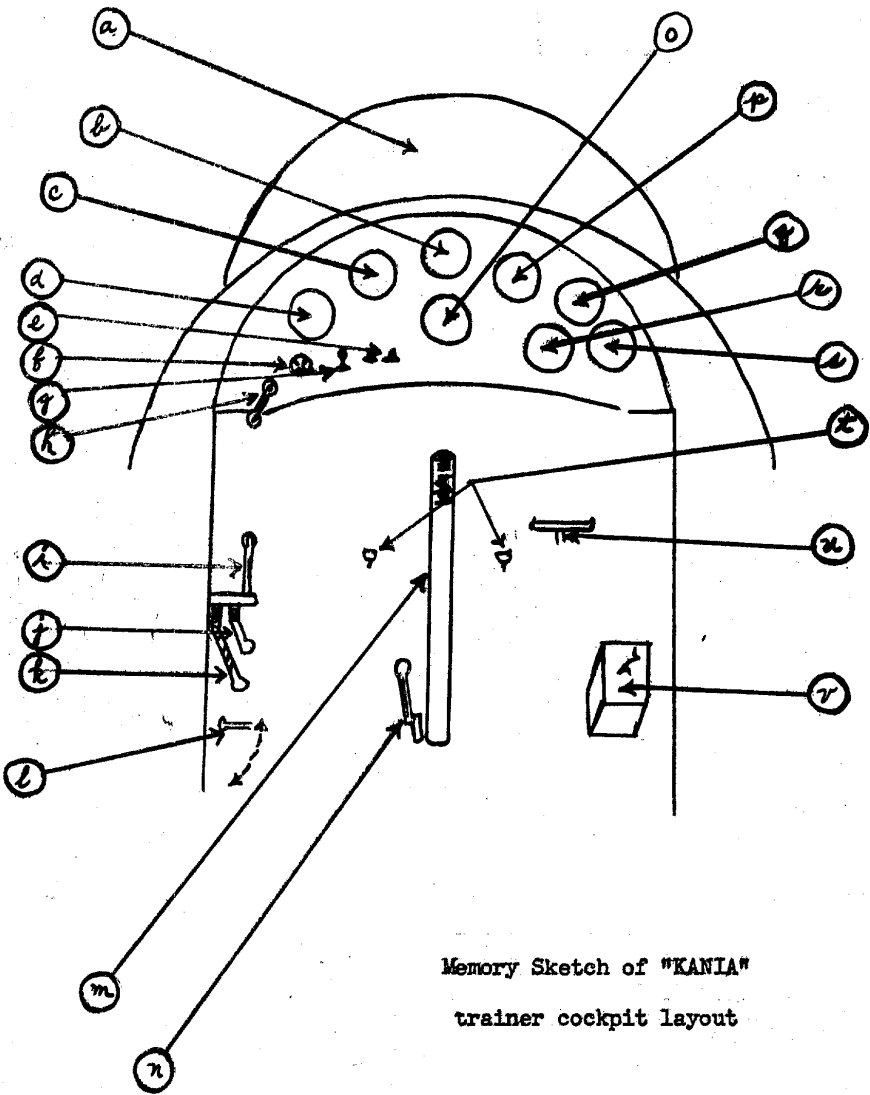
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ENCLOSURE (B)

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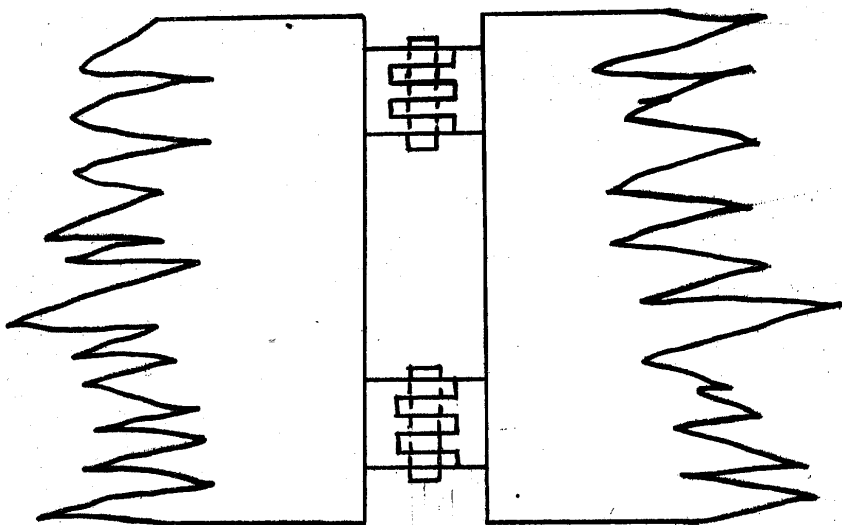
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Memory sketch of "KANIA" trainer aircraft wing joints

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